***This is only a **preview** of the exam task statements for the Training & Experience Examination. You will be asked to respond to each task statement indicating how your training and experience relate to each. To take the actual exam, please refer back to the bulletin and click the “Click here to go to the Internet exam” link at the bottom of the bulletin.

# Training and Experience Evaluation Preview
# Engineering Geologist

The California civil service selection system is merit-based and eligibility for appointment is established through a formal examination process. This examination consists of a Training and Experience evaluation used to evaluate your education and experience relevant to the position.

This Training and Experience evaluation is a scored component accounting for 100% of your rating in the examination process. It is important to complete the questionnaire carefully and accurately. Your responses are subject to verification before appointment to a position.

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To answer all the test items (task statements) in this exam, you will be required to choose from among the provided answers.

**Instructions**

Rate your experience performing specific job-related tasks.

Respond to each of the following statements by indicating how the statement applies to you. You are required to respond to every question.

In responding to each statement, you may refer to your WORK EXPERIENCE, whether paid or volunteer, your EDUCATION, and/or FORMAL TRAINING COURSES you have completed.

PLEASE NOTE: This examination is designed to gain an overall assessment of your education and experience as it directly relates to the duties and the knowledge, skills and abilities required for this position. All components of this examination have been carefully validated by tying them directly to job requirements and documenting their relevance to the position.

## Tasks for Engineering Geologist

1. Spreadsheet software
2. Database software
3. Word Processing software
4. Slope Stability software
5. Statistical software
6. Power Point software
7. Adobe Acrobat software
8. Geographic Information Systems (GIS) software
9. Groundwater/Vandose zone modeling
10. Graphic/Drawing/Contouring software
11. Analyze and interpret engineering geological literature.
12. Assessing quality of geological data.
13. Principles of geological risk management.
14. Application of statistical methods of analysis.
15. Principles of land use practices with reference to their general effect on human health and the environment.
16. Principles of scientific research as applied to geological topics.
17. Principles of slope stability.
18. Knowledge of seismic hazards in California.
19. Knowledge of cross-media environmental impacts.
20. Develop a surface water sampling plan.
21. Collect surface water samples.
22. Identify sources of pollutants in surface water.
23. Determine interaction between surface water and groundwater.
24. Develop a groundwater monitoring plan.
25. Collect groundwater samples.
26. Measure groundwater elevation.
27. Draw groundwater elevation contours.
28. Determine hydraulic conductivity.
29. Evaluate results of slug tests in the field for hydraulic conductivity.
30. Evaluate results of pump tests in the field for hydraulic conductivity.
31. Review groundwater sample analytical data.
32. Evaluate results of percolation or infiltration testing.
33. Determine groundwater flow direction.
34. Determine groundwater flow gradient.
35. Well construction.
36. Well Abandonment.
37. Identify pathways for migration of contaminants.
38. Determine contaminant fate and transport.
39. Determine aquifer storativity.
40. Determine aquifer transmissivity.
41. Evaluate potential sources of groundwater contamination.

42. Understand factors affecting natural attenuation of contaminants.
43. Evaluate behavior of organic chemicals in groundwater.
44. Evaluate behavior of inorganic chemicals in groundwater.
45. Evaluate options for groundwater remediation.
46. Develop a study design for identifying sources of pollutants within a watershed.
47. Develop recommendations or planning tools for pollutant reduction in a watershed.
48. Calculate water balance within a watershed.